

REMARKS

Claims 1-3 and 5 were pending.

Claim 1 has been amended to recite that the both of the cap and base layers are made of, by weight, 50-90% of metallocene-catalyzed polyethylene. Claim 3 has been canceled without prejudice.

New claim 6 has been added. Support for the amendments and new claim can be found throughout the present disclosure, for example in the Specification at page 3, lines 15-23, page 4, lines 1-19, page 5, lines 7-17, page 7, line 9 and claim 1 as filed. Therefore, no new matter has been added.

Claims 1, 2, 5 and 6 are now pending.

I. **Rejection of 1-5 Under 35 U.S.C. § 102(e)**

Claims 1-5 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,743,864 to Glogovsky et al. ("Glogovsky"). Applicant respectfully traverses.

First, as amended, independent claim 1 recites a thermoplastic polyolefin (TPO) roofing membrane comprising cap and base layers, wherein both the cap and base layers are made of, by weight, 50-90% of metallocene-catalyzed polyethylene. As stated in the Specification, the crystallinity enhancing polymer is beneficial in providing tensile strength and heat resistance of the roofing sheets. *See* Specification, page 5, lines 7-17.

Glogovsky does not teach, *inter alia*, roofing membranes having the characteristic that both the cap and base layers are made of, by weight, 50-90% of metallocene-catalyzed polyethylene. Thus, Glogovsky does not anticipate the presently pending claims because it does

not teach each and every element of claim 1 as presently amended, or claims 2, 3 and 5 that depend therefrom. Nor does it teach each and every limitation of new claim 6.

Furthermore, even if Glogovsky did teach each and every element of the pending claims (which Applicant asserts it does not), Applicant respectfully submits that Glogovsky is not a valid § 102(e) reference with regard to the presently pending claims, as Applicant conceived and reduced the present invention to practice before the earliest effective filing date of Glogovsky (that is, before March 12, 2002). This is confirmed by the attached Declaration of Li-Ying Yang dated October 28, 2004 and previously submitted in the parent application to the present application, Serial. No. 10/627,847 (later abandoned).

As an initial matter, please note that the Declaration in paragraph 5 refers to the Glogovsky reference, but misidentifies the patent number as “6,743,843” rather than the correct number of **6,743,864**. However, Applicant respectfully submits that this error was inadvertent and that Dr. Yang’s intention was to list the correct patent number of the Glogovsky reference. This is further confirmed by the correct listing of the first-named inventor of Glogovsky, along with the correct listing of the earliest effective filing date of March 12, 2002. A search of the USPTO patents database reveals that the erroneously-listed patent number refers to an invention completely unrelated to the present art, and owned by a completely different company than the Assignee of the present invention, and having a priority date different from that of the Glogovsky reference. Should the Examiner require further confirmation that this error was inadvertent, Applicant’s representatives would be happy to discuss this matter by telephone and provide any required additional documentation.

Next, the Declaration attaches copies of 3 pages of laboratory notebook entries of Dr. Yang’s, which indicate that a single ply roofing membrane according to claim 1 was prepared, in

which both cap and base layers were made of metallocene-catalyzed polyethylene and derivatives, and exhibited the peel strength and brittleness ranges recited in the pending claims. Each page's information will be described in turn.

On page 1 of the lab notebook entries, please note that the peel strength is indicated by the "% FTB" and "load" columns. Also note that claim 1 recites that the membrane exhibits "a 90% heat seam peel strength of ≥ 60 lbs/linear inch (ASTM D-413)" and these ranges are demonstrated in the notebook entries.

In particular, the numbers in the "load" column are expressed in lbs/linear inch, and the numbers in the "% FTB" column are expressed as percentages. The top two tables indicate the data for Samples entitled "TPO2+" and "TPO2+EX," which are compositions previously known. The third table indicates the data for Samples entitled "EX1" which are compositions of the present invention. As seen from the three tables on the first page, only the compositions of the present invention exhibit the desirable characteristics of "a 90% heat seam peel strength of ≥ 60 lbs/linear inch (ASTM D-413)" (claim 1).

Next, page 2 of the lab notebook entries shows various compositions of the prior art. Specifically, the three compositions "TPO2+ Core," "TPO2+EX" and "TPO2+ Cap" refer to various previously known compositions that differ from the presently claimed compositions, in that less than 50-90% of metallocene-catalyzed polyethylene is present. Such polyethylene is described in these tables under the trade names of "Exxon 3128" and "Exxon 3022." These three compositions relate back to the tables on the first page of the lab notebooks, as "TPO2+" is a combination of "TPO2+ Core" and "TPO2+ Cap" (the terms "core" and "cap" denoting base and cap formulations, respectively).

Finally, page 3 of the lab notebook entries compares compositions of the invention to other previously known compositions. “EX-Core1” and “EX-Cap1” are the base and cap formulations, respectively, of a composition according to the present invention. As seen from the text below the table, the composition “EX” is a combination of “EX-Cap1” and “EX-Core1” (the terms “core” and “cap” denoting base and cap formulations, respectively). As can be seen from this table, the compositions of the present invention differ from those previously known, in that, *inter alia*, they comprise high amounts of polyethylene.

Furthermore, a skilled artisan would expect that such compositions would exhibit the cold brittleness point of $\leq -50^{\circ}\text{C}$ (ASTM D-413) as recited in claim 1, because of their high amount of polyethylene (50-90%). Thus, the Declaration further supports Applicant’s contention that the compositions of the present invention were conceived and reduced to practice before the earliest effective date of Glogovsky (March 12, 2002).

For at least these reasons, Applicant respectfully submits that the rejection of claims 1-5 under 35 U.S.C. § 102(e) has been overcome and should be withdrawn.

In view of the above amendments and remarks, Applicant believes that each of the pending claims is in condition for allowance, early notice of which is earnestly solicited.

The Director is hereby authorized to charge the appropriate fee in the amount of \$810.00 for the Request for Continued Examination and the appropriate fee in the amount of \$490.00 for Petition for Two-Month Extension of Time; as well as to charge any additional fees due or credit any overpayments to Deposit Account No. 03-1250, Reference No. FDN-2794/CIP, Customer No. 43,309.

Respectfully submitted,

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